

CLAIMS:

1. An electro-optical display device comprising
a translucent front wall (12) and
at least one pixel (10) with an electro-optical medium, a scattering medium
and a switching electrode (6) associated with the front wall (12), and drive means via which
5 the pixel (10) can be brought to different optical states,
characterized in that
the pixel (10) comprises a low-refractive index material (21) with a refractive
index n_{li} in the range from $1.0 \leq n_{li} \leq 1.6$.
- 10 2. An electro-optical display device as claimed in claim 1, characterized in that
the refractive index of the low-refractive index material (21) is $n_{li} \leq 1.4$.
3. An electro-optical display device as claimed in claim 1 or 2, characterized in
that the low-refractive index material (21) is selected from the group formed by a fluor-
15 polymer, a low-dielectric inorganic film and a low-dielectric nano-porous film.
4. An electro-optical display device as claimed in claim 1 or 2, characterized in
that the low-refractive index material (21) is provided between the switching electrode (6)
and the electro-optical medium.
20
5. An electro-optical display device as claimed in claim 1 or 2, characterized in
that the low-refractive index material (21) is provided between the switching electrode (6)
and the translucent front wall (12).
- 25 6. An electro-optical display device as claimed in claim 5, characterized in that
the thickness of the switching electrode (6) is less than or equal to the wavelength of visible
light.

7. An electro-optical display device as claimed in claim 1 or 2, characterized in that the electro-optical medium comprises particles (14; 15) of the low-refractive index material.

5 8. An electro-optical display device as claimed in claim 1 or 2, characterized in that the distance between the low-refractive index material (21) and the electro-optical medium is less than or equal to the wavelength of visible light.

9. An electro-optical display device as claimed in claim 1 or 2, characterized in
0 that the distance between the low-refractive index material (21) and the electro-optical medium is less than or equal to 500 nm.

10. An electro-optical display device as claimed in claim 1 or 2, characterized in that the electro-optical medium is an electro-phoretic medium.

5 11. An electro-optical display device as claimed in claim 1 or 2, characterized in that the electro-optical medium and the scattering medium are combined as an electro-phoretic medium.

20 12. An electro-phoretic color display device as claimed in claim 1 or 2, characterized in that the electro-phoretic medium is present in a microcapsule.

13. An electro-phoretic color display device as claimed in claim 12, with one microcapsule per pixel or with one microcapsule per sub-pixel.

25 14. An electro-optical display device as claimed in claim 1 or 2, characterized in that the electro-optical medium is an electro-chromic medium.

15. An electro-optical display device as claimed in claim 14, characterized in that
30 the switching electrode and the electro-chromic medium are combined.